REMARKS

I.   Status of the Application

Claims 1-20 are pending in this application. In the September 12, 2005 office action, the Examiner:

1.   Rejected claim 1, 3-5, 10, 11, 13, 15, 17 and 19-20 under 35 U.S.C. § 103(a) as allegedly being anticipated by U.S. Patent No. 6,047,274 to Johnson et al. (hereinafter "Johnson"); and

2.   Rejected claims 2, 6-9, 12, 14, 16, 18 and 19 under 35 U.S.C. § 103(a) as allegedly being obvious over Johnson in view of U.S. Patent No. 6,021,402 to Takriti (hereinafter "Takriti").

In this response, applicant has canceled claims 1-16, without prejudice, and has amended claims 17 and 19. Applicant has added new claims 21-36, and respectfully traverses the rejections of claims 17-20 in view of the foregoing amendments and the following remarks.

II.   Claim 17 is Patentable

In the September 12, 2005 office action, the Examiner rejected claim 17 as allegedly being obvious over Johnson. The Examiner has admitted that Johnson fails to disclose an energy scheduling subsystem as claimed in claim 1. As will be discussed below in further detail, there is no legally sufficient motivation or suggestion to modify Johnson as proposed by the Examiner. In addition, Johnson fails to disclose a "security analysis function analyzing the energy generation and delivery system under one or more contingency

conditions and with a plurality of energy generation units selected for operation, the scheduling of generation and delivery of energy based at least in part on the security analysis function."

A.   The Invention of Claim 17

Claim 17 is directed to an energy market system that includes a market user interface and an energy scheduling subsystem. The market user interface exchanges market information with a plurality of market participants. The energy scheduling subsystem that schedules the generation and delivery of energy among market participants in accordance with the market information *and* in accordance with information relating to the energy generation and delivery system.

Thus, among other things, the system includes an energy scheduling subsystem that schedules energy generation and energy delivery in accordance with *two* factors. The first factor is the market information, for example, bids and offers. The second factor is information relating to the energy generation and delivery system, for example, constraints introduced by the physical characteristics of the energy generation and delivery system.

In addition, claim 17 recites that the energy scheduling subsystem includes a *security analysis function*. This security analysis function analyzes the energy generation and delivery system under one or more contingency conditions and with a *plurality* of energy generation units *selected for operation*, the scheduling of generation and delivery of energy based at least in part on the security analysis function.

B.   Johnson

Johnson discloses an auction system for energy suppliers. A bidding moderator receives bids from competing energy suppliers. Each supplier receives competing bids and has the opportunity to adjust its own bid down or up, depending on whether it wants to encourage or discourage additional energy delivery commitments in a particular geographic area or to a particular customer group. (See e.g. Johnson at Abstract). A winner bidder is then responsible for scheduling the energy delivery.

C.   Johnson Does Not Disclose or Suggest a Security Analysis of a
       Plurality of Energy Generating Units Selected for Operation

Johnson fails to teach a security analysis function as claimed. Johnson also does not perform any analysis of contingency conditions for a plurality of selected energy generating units selected for operation. In particular, Johnson appears to perform *scheduling* by a single generating unit, if at all. In particular, the scheduling is performed by the "Provider" of Johnson.

Nothing in Johnson suggests or discloses that one of these Providers (nor anything else) determines a contingency condition for a plurality of selected energy generating units.

In the rejection, the Examiner state the following in connection with the "security analysis" limitation of claim 17:

> Furthermore, Johnson teaches that the rules of the bidding process specify a condition (contingency) that only those bids for power supply would be considered, which include supply blocks of power of sufficient size to fulfill 100% of the end user's projected requirement (security analysis function).

(September 12, 2005 office action at p.4).

Thus, Johnson teaches *excluding* from selection any bid from an energy generating unit that could not provide 100% of the power requirement. Applicants respectfully submit

that the application of "rules of the bidding process" to exclude bids based on a condition *does not* constitute determining a contingency condition for a plurality of energy generating units that have been *selected for operation.*

The bids rejected by Johnson for failing to satisfy the 100% power requirement have never been and are never selected for operation. In other words, if a bid from an energy generating unit is not even considered, the energy generating unit can not, under any circumstances, be considered to be *selected.* By contrast, the claimed invention selects energy generating units to satisfy one or more loads, and *then* generates a security analysis using the combination of energy generating units selected.

Furthermore, nothing in Johnson suggests single *subsystem* that performs any analysis with *a plurality of selected energy generating units.* The only device that plans for the delivery in Johnson, is the Provider. The Provider does not perform any analysis of other Providers, with the exception of analyzing their bid prices.

As a consequence, the modification of Johnson proposed by the Examiner fails to arrive at a system that performs a "security analysis function analyzing the energy generation and delivery system under one or more contingency conditions and with a plurality of energy generation units selected for operation, the scheduling of generation and delivery of energy based at least in part on the security analysis function." Accordingly, it is respectfully submitted that the rejection of claim 17 is in error for at least this reason.

D.   No Motivation to Modify Johnson as Proposed

Moreover, there is no motivation or modify Johnson as proposed by the Examiner. Johnson fails to disclose, among other things, an energy scheduling subsystem that schedules

11

generation and delivery of energy based on *both* the market information *and* information relating the energy generation and delivery system. The Examiner admits this shortcoming of Johnson at p.4 of the September 12, 2005 office action. Instead, Johnson teaches a centralized Moderator device that selects winning bidders based on market information, and that the winning bidders (Providers) are responsible for scheduling the delivery of energy. (*Id.*)

However, the Examiner alleges that "it would have been obvious . . . to modify Johnson to include that said energy delivery scheduling system is an energy scheduling subsystem of said energy supply bidding system. . . ." (*Id.*) The Examiner states that the motivation for such a modification is that "it would advantageously allow to integrate said functionalities (bidding for energy supply; selecting the winning bidder; and scheduling the delivery of energy) on one computer platform, thereby allowing to simplify upgrading and maintenance of the system, and save on maintenance cost". Applicant respectfully disagrees.

There is no teaching in the prior art that 1) integrating bidding, selecting, and scheduling the delivery of energy on a single computer platform saves maintenance costs, 2) that such integration in the Johnson system, in particular, would save maintenance costs, and 3) if there were savings, that such savings outweighed any negatives such integration. Thus, the above-quoted "motivation" for modifying Johnson is not a legally sufficient motivation or suggestion to modify Johnson as proposed.

Regarding the integration of the three functions (bidding, selecting and scheduling) onto a single computer platform, the prior art contains no teaching, implicit or express, that the integration of three functions of bidding for energy supply, selecting a winning bidder, and scheduling would result in simplifying upgrading and maintenance. In fact, the Examiner's allegation appears to be speculation, as it is equally possible that such integration

12

of functions would actually *increase* costs of maintenance.

As an initial matter, the software on the platform having those three functions integrated would be larger than the software on separate platforms that divide up the functions. Upgrading, troubleshooting, and repairing a problem in a larger software package is generally more complex than doing the same in separate, smaller software elements. Moreover, the integrated functions proposed by the Examiner would require more load on computing resources, because the computing load is not distributed over multiple machines. Thus, integration of the three functions, as proposed by the Examiner, may well not decrease maintenance costs.

Moreover, it is even less clear whether integration of the three functions in the Johnson system in particular would save maintenance costs. The prior art contains no teaching, implicit or otherwise, that the particular bidding, selecting and scheduling operations as taught in Johnson would benefit from integration into a single scheduling subsystem. Johnson very clearly discusses using different computers for bid selection (Moderators) and scheduling (Providers). Even if consolidation of computer functions as a general rule provides some advantages in some circumstances, the prior art does not teach that such consolidation provides any advantages in a system as complex and dynamic as that described in Johnson.

Finally, there is no teaching in the prior art regarding the relative costs of integration of the functions as proposed by the Examiner. Indeed, the prior art provides no teaching regarding either the costs or benefits of such integration. Accordingly, the prior art contains no teaching or suggestion as to whether there is *any net advantage* to integration of the functions into a single computer platform as proposed by the Examiner. To the contrary, in

the case of Johnson, the ability of Providers to be able to schedule energy delivery on their own has advantages. There is no teaching as to whether losing these advantages is worth any savings in maintenance costs, assuming there were any such savings.

Thus, for multiple reasons, there is no legally sufficient motivation or suggestion to modify Johnson as proposed by the Examiner. As a consequence, it is respectfully submitted that the rejection of claim 17 is in error and should be withdrawn.

III. Claims 18 and 19

Claims 18 and 19 stand rejected as allegedly being obvious over Johnson in view of Takriti. Claims 18 and 19 depend from and incorporate all of the limitations of claim 17. As discussed above, the rejection of claim 17 over Johnson is in error and should be withdrawn. The modification of Johnson proposed in connection with claims 18 and 19 does not address the shortcomings of Johnson with respect to claim 17. Accordingly, claims 18 and 19 is allowable for at least the reasons discussed above in connection with claim 17.

IV. Claim 20

Claims 20 also stands rejected as allegedly being obvious over Johnson. Claim 20 depends from and incorporates all of the limitations of claim 17. Accordingly, for at least the same reasons as those set forth above in connection with claim 17, it is respectfully submitted that the rejection of claim 20 should be withdrawn.

V.   New Claims 21-29

New claim 21 is patentable over the prior art for a plurality of reasons. First, claim 21 includes a limitation directed to an energy scheduling subsystem that schedules generation and delivery of energy based on *both* the market information *and* information relating the energy generation and delivery system. As discussed above in connection with claim 17, Johnson does not disclose such an energy scheduling subsystem and there is no legally sufficient motivation or suggestion to modify Johnson to include such an energy scheduling subsystem.

Moreover, claim 21 recites a database that includes market information entered by market participants regarding a plurality of generator bids and a plurality of load bids. The same database further includes a model of a transmission network. Johnson does not disclose such a database nor is there any motivation to include such a database in Johnson.

In particular, Johnson does indeed maintain data regarding bids by market participants. However, nothing in Johnson discloses or suggests that a model of the transmission network is used by the system. Even if such a model were used, there is no disclosed or inherent reason to include the model in the same database as that which contains the market participant bids. To this end, it is noted that Johnson does not consider loading or power flow solutions of the transmission network during the settlement of bids. As a consequence, there would be no reason to keep the model of the transmission network and the market participant bids in the same database.

Accordingly, not only does Johnson disclose the claimed first database, Johnson also fails to disclose a system that could derive any meaningful benefit out of being modified to include the claimed first database.

For the foregoing reasons, it is respectfully submitted that claim 21 is allowable over the prior art.

Claims 22-29 depend from claim 21 and are allowable for at least the same reasons.

VI.   New Claims 30-36

New claim 30 is patentable over the prior art. Claim 30 is similar to canceled claim 10, in that claim 30 recites an energy transmission rights auction subsystem. It is respectfully submitted that Johnson fails to disclose any auction of energy transmission rights, much less a subsystem for that purpose.

Energy transmission rights relate to contractual rights to *transfer* power over a particular *transmission path*. As is known in the art, transmission systems do not have unlimited energy transmission capacity. As a consequence, there is value in securing the right to transfer power over a particular path. Claim 30 is directed to an auction system that provides for the exchange of these rights between market participants. Johnson, by contrast, does not discuss or even mention energy transmission rights.
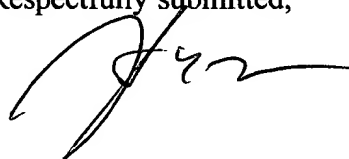
For the foregoing reasons, it is respectfully submitted that claim 30 is allowable over the prior art.

Claims 31-36 depend from claim 30 and are allowable for at least the same reasons.

VII. Conclusion

For all of the foregoing reasons, it is respectfully submitted the applicant has made a patentable contribution to the art. Favorable reconsideration and allowance of this application is, therefore, respectfully requested.

Respectfully submitted,

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